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P1 1. An arrangement comprising:

a source providing a power line voltage between a first and a second power line terminal;

Cl P1 a power track having a first and a second track conductor; the power track being operative to receive and hold a number of track lighting units; each one track lighting unit having a pair of load terminals; which load terminals, when the one track lighting unit has been received and is indeed being held by the power track, make electrical connection with the track conductors; and

P1 voltage conditioner means connected in circuit between the power line terminals and the track conductors; the voltage conditioner means being operative to convert the power line voltage provided between the power line terminals to a track voltage provided between the track conductors; there being, through the voltage conditioner means, an electrical conduction path between the first track conductor and one of the power line terminals; the fundamental frequency of the track voltage being substantially higher than that of the power line voltage.

2. The arrangement of claim 1 wherein the absolute instantaneous magnitude of the track voltage is substantially equal to that of the power line voltage during a significant part of each half-cycle of the power line voltage.

3. The arrangement of claim 1 wherein the first track conductor is, via action occurring within the voltage conditioner means, alternately and periodically switched between the first and the second power line terminal at the frequency of the track voltage.

4. The arrangement of claim 1 wherein the first track conductor is, via action taking place within the voltage conditioner means, periodically connected with the first power line terminal; such that, while such connection is taking place, the electrical potential of the first track conductor is substantially the same as that of the first power line terminal.

P1  
5. An arrangement comprising:

a source providing a power line voltage between a first and a second power line terminal;

P1  
a power track having a first and a second track conductor; the power track being operative to receive and releaseably hold a number of track lighting units; each one track lighting unit having a pair of load terminals; which load terminals, when said one track lighting unit has been received and is indeed being held by the power track, make electrical connection with the track conductors; and

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P1  
voltage conditioner means connected in circuit between the power line terminals and the track conductors; the voltage conditioner means being characterized by functioning: (i) repeatedly and periodically to connect for a brief period of time the first track conductor with the first power line terminal, and (ii) in such manner as to provide between the track conductors a track voltage having a fundamental frequency substantially higher than that of the power line voltage.

6. The arrangement of claim 5 wherein the brief period of time has a duration that is approximately equal to half that of the fundamental period of the track voltage.

P1  
7. An arrangement comprising:

a source providing a power line voltage between a first and a second power line terminal;

P1  
a power track having a first and a second track conductor; the power track being operative to receive and releaseably hold a number of track lighting units; each one track lighting unit having a pair of load terminals; which load terminals, when said one track lighting unit has been received and is indeed being held by the power track, make electrical connection with the track conductors; and

P1  
voltage conditioner means connected in circuit between the power line terminals and the track conductors; the voltage conditioner means being characterized by functioning: (i) periodically and alternately to cause electrical connection between the first track conductor and the first and second power line terminals, and (ii) to provide between the track conductors a track voltage having a fundamental frequency substantially higher than that of the power line voltage.

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8

19. An arrangement comprising:

source means providing a power line voltage between a pair of power line terminals; and power track and lighting means characterized by including:

(a) a pair of main input terminals connected with the power line terminals;

(b) a pair of track conductors;

(c) a slot means;

(d) a track lighting unit having an incandescent lamp with a pair of lamp terminals; the track lighting unit also having a pair of power input terminals and a pair of power output terminals; the power output terminals being connected with the lamp terminals; the track lighting unit being inserted into the slot means, thereby to cause the power input terminals to connect with the track conductors; and

(e) voltage conditioner means connected in circuit between the main input terminals and the power output terminals; the power track and lighting means being further characterized by functioning such that:

(f) there exists an electrical conduction path between the track conductors and the power line terminals; and

(g) an output voltage exists across the lamp terminals; the output voltage being of frequency substantially higher than that of the power line voltage and having an RMS magnitude that varies periodically in synchronism with, as well as in proportion with, the instantaneous absolute magnitude of the power line voltage.

9

20. An arrangement comprising:

source means operative to provide a power line voltage at a pair of power line terminals;

voltage conditioner means; and

power track means having track conductors and track receptacle means; the track conductors being: (i) connected with the power line terminals by way of the voltage conditioner means; and (ii) having a track voltage of frequency substantially higher than that of the power line voltage; there being, by way of the voltage conditioner means, an electrical conduction path between the track conductors and the power line conductors.

10

9

21. The arrangement of claim 20 wherein the track voltage has an RMS magnitude that is proportional to the instantaneous absolute magnitude of the power line voltage.

14

11

22. An arrangement comprising:

source means operative to provide a power line voltage at a pair of power line terminals;

power track means having track conductors and track receptacle means operable to receive and hold plural track lighting units; and

voltage conditioner means connected between the power line terminals and the track conductors; the voltage conditioner means being operative: (i) to provide to the track conductors a track voltage of frequency substantially higher than that of the power line voltage; and (ii) to cause an electrical conduction path to exist between the track conductors and the power line conductors.

12

23. An arrangement characterized by comprising:

a power track means having track conductors and a receptacle slot; the track conductors being connected in circuit with a pair of power line conductors of an ordinary electric utility power line; an AC power line voltage being present at the power line conductors; and

plural lighting units; each lighting unit: (i) having a pair of input terminals, (ii) being operable to be inserted into the receptacle slot and to connect with the track conductors, (iii) having an incandescent lamp with a pair of lamp terminals, and (iv) when indeed being inserted into the receptacle slot, causing a high-frequency voltage to be applied to the lamp terminals; the frequency of the high-frequency voltage being substantially higher than that of the AC power line voltage; the RMS magnitude of the high-frequency voltage being modulated in direct proportion with the instantaneous absolute magnitude of the AC power line voltage.

13

24. An arrangement comprising:

a power line providing an AC power line voltage at a pair of power line terminals; and

power track means having a pair of track conductors connected in circuit with the power line terminals; the power track means having a receptable slot operative to receive and disconnectably hold a number of track lighting units; a track voltage existing between the track conductors; the voltage being of frequency substantially higher than that of the power line voltage; the instantaneous absolute magnitude of the track voltage being substantially equal to that of the power line voltage.

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